

**COMMONWEALTH OF VIRGINIA**  
**Department of Environmental Quality**  
**Blue Ridge Regional Office**

**STATEMENT OF LEGAL AND FACTUAL BASIS**

Greif Riverville LLC.  
861 Fibre Plant Road, Riverville, Virginia  
Permit No. BRRO-30549

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Greif Riverville LLC. has applied for a significant modification of their Title V Operating Permit for its Riverville, Virginia facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

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Date: 12/3/13

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Date: 12/3/13

## **FACILITY INFORMATION**

### Permittee

Greif Riverville, LLC  
P.O. Box 339  
Amherst, VA 24521

### Facility

Greif Riverville, LLC  
861 Fibre Plant Road  
Riverville, VA

County-Plant Identification Number: 51-009-00022

## **SOURCE DESCRIPTION**

NAICS Code: 322130 - manufacturer of semi-chemical corrugated medium and recycled liner board

Greif Riverville LLC has one semi-chemical paper machine and one recycled paperboard machine, and associated process equipment. Two natural gas/residual oil boilers, one combination fuel boiler, one chemical recovery boiler, and one natural gas/distillate oil spare boiler provide the steam requirements to the facility.

The facility is a Title V major source of Particulate Matter (PM-10), Nitrogen Oxides (NO<sub>x</sub>), Sulfur Dioxide (SO<sub>2</sub>), Carbon Monoxide (CO), and Volatile Organic Compounds (VOCs). This source is located in an attainment area for all pollutants, and is a PSD major source. The facility was previously permitted under the following permits:

- a Minor NSR Permit dated April 30, 1998, as amended 11/23/04 for a mixed-fuel boiler
- a Minor NSR Permit dated May 30, 2003 for an evaporator system
- a Minor NSR Permit dated October 13, 2000 for a standby boiler
- a Minor NSR Permit dated May 12, 1992, as amended October 5, 1994 and February 22, 1995 for paper machine No. 2
- a Minor NSR Permit dated April 3, 1973 for the greenfield facility

### **SIGNIFICANT MODIFICATION INFORMATION**

The former Minor NSR permit (4/30/98, as amended 11/23/04) for the mixed-fuel boiler (BLR 05) was superseded with a separate Minor NSR permit dated September 17, 2013 for a project to increase the short term heat input capacity of the boiler from 244 to 292 MMBtu/hr. The purpose of this current significant modification of Greif's Title V permit is to incorporate the 2013 Minor NSR permit changes into the set of applicable requirements for the facility. Except as described below, the current set of applicable requirements for the Greif facility remain as set forth in the current Title V permit (i.e., Effective date 11/19/06<sup>1</sup>)

### **COMPLIANCE STATUS**

A full compliance evaluation of this facility, including a site visit, has been conducted. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

### **EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION**

The emissions units at this facility are listed in the Title V permit in Section II in the significant units table and in Section IX in the insignificant units table.

### **EMISSIONS INVENTORY**

Emissions are summarized in the following tables.

2012 Actual Emissions

	2012 Criteria Pollutant Emission in Tons/Year				
Pollutant	VOC	CO	SO <sub>2</sub>	PM <sub>10</sub>	NO <sub>x</sub>
Total	172.2	517.5	0.4	66.5	440.0

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<sup>1</sup> Greif Riverville LLC submitted a timely and complete application for a Title V Permit renewal therefore the source is operating under a permit shield according to 9 VAC 5-80-80 F.5 and 9 VAC 5-80-140.

**2012 Facility Hazardous Air Pollutant Emissions**

Pollutant	2012 Hazardous Air Pollutant Emission in Tons/Yr
Acetaldehyde	18.0
Benzene	0.9
Formaldehyde	0.3
Hydrochloric Acid	0.1
Methyl Ethyl Ketone	4.2
Methanol	133.1
Ammonia	2.3
m-xylene	0.1
o-xylene	0.1
Styrene	0.1
Toluene	0.2
Total Reduced Sulfur	3.9

**EMISSION UNIT APPLICABLE REQUIREMENTS -**

The following section discusses requirements for the modified emissions units at the facility that are subject to Title V permitting. These requirements come from the Minor NSR permit dated September 17, 2013 for the boiler BLR05 capacity increase project. The conditions are not repeated verbatim from the permit. The regulatory authority for each condition is listed in parentheses ( ) below each condition in the permit.

**General:**

- The regional office name is updated to the current title (i.e., Blue Ridge Regional Office)
- On 11/7/12, a set of amendments to Virginia's Minor NSR program became effective. Those amendments included a new section 9VAC5-80-1255, "Actions to combine permit terms and conditions." Because of the requirements of that section, it became important to distinguish between "permit approvals" and the "permit documents" in which such approvals are housed. Therefore, in the citations of the current Title V permit, the nomenclature "X/Y/ZZ Permit" is changed to "X/Y/ZZ Permit Document".

**B&W Package Boiler – North (Ref. No. BLR01) and the B&W Package Boiler – South (Ref. No. BLR02)**

In order to support a PSD netting demonstration, the former permit document for boiler BLR05 included several limitations on the North boiler (BLR01). Since the 9/17/13 Minor NSR permit document superseded that former permit document (4/30/90, as amended 11/23/04) in its entirety, regulatory citations of that document are updated to the 2013 date.

In condition IIIA1b, in accordance with current practice, the ASTM reference number (ASTM D396) is added to the description of that standard, "Standard Specification for Fuel Oils."

In condition IIIA1g, the applicable requirement for maintenance and training is updated to the current minor NSR boilerplate language as used in the 9/17/13 permit<sup>2</sup>.

Condition IIIA4: Condition 17 in the 2013 NSR permit inadvertently overly-narrowed the scope of the Emission Testing requirement to BLR05. Therefore, the general duty requirement to provide for emission testing upon request (9VAC5-50-30F) is cited as the authority for this condition rather than the underlying NSR permit as was the case in the former T5 permit document.

**Foster Wheeler Combination Boiler (Ref. No. BLR05)**

The following changes to applicable requirements for boiler BLR05 are carried forward from the 9/17/13 Minor NSR permit into the Title V permit:

Limitations for BLR05:

Condition IIIC1c: approved fuels definitions

Formerly there were four permitted allowable fuels for BLR05 (woodwaste, Old Corrugated Container Rejects (OCCR), natural gas (NG), and Tire Derived Fuel (TDF). In light of the court ordered regrouping of combustion devices into boilers (which burn fuels) and incinerators (which burn wastes), the approved fuel for boiler BLR05 is renamed "wood residuals" rather than "wood waste." Similarly, reportedly OCCR has been renamed "Paper Recycling Residuals" (PRR) in the proposed rule change package sent to OMB by EPA for consideration. Beyond terminology changes, the intended nature of these two fuel types remains unchanged.

Condition IIIC1d: MSW throughput limit

When boiler BLR05 was initially permitted, that approval included a limit on the percentage of Municipal-type solid waste (MSW) allowed in the fuel feed stream. As stated on page 4 of the analysis for that initial permit, "Of the fuels to be fired in "boiler BLR05" only OCCR and TDF are considered to fit the Subpart's (NSPS Eb) definition of MSW." As described in Condition IIIC3a(3) discussion below, with the current permit approval OCCR (PRR) must be shown to be a non-waste. Also, as described in Condition IIIC1e discussion below, Greif has voluntarily eliminated TDF from the list of approved fuels. Therefore, the conditions in the previous NSR permit that addressed MSW<sup>3</sup> are no longer germane and therefore are deleted from both the 2013 NSR permit and this draft Title V significant modification.

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<sup>2</sup> It is noted that the Maintenance/Operating Procedures condition in the 2013 NSR permit (Condition 18) inadvertently overly-narrowed the scope of this requirement to BLR05. Therefore, the general duty requirement to minimize emissions (9VAC5-50-20E) is cited as the authority for this condition in the current T5 permit rather than the underlying NSR permit condition numbers as was the case in the former T5 permit document. Further it is also noted that in the NSR permit, the authority for the maintenance/operating requirement is 9VAC5-50-20E

<sup>3</sup> Conditions 6 and 23.c of the 2004 NSR permit amendment (i.e., conditions Condition IIIC1d and IIIC3a(2) of the current T5 permit)

Condition IIIC1e: throughput limits for approved fuels

The heat input from NG is unchanged as part of the current project. The ability to fire an additional quantity of wood residuals is the principle focus of the current boiler BLR05 project, and therefore, consistent with the NSR permit, the annual throughput is increased from 195,525 to 221,223 tons/yr. The allowable heat input from PRR (formally OCCR) is unchanged as part of the current project. Finally, as part of the 2013 NSR permit application, Greif voluntarily requested that Tire Derived Fuel (TDF) be removed from the list of approved fuels.

Condition IIIC1f: emission limits

The revised emission limits from the 2013 NSR permit are updated in the draft T5 permit.

Condition IIIC1h: maintenance/operating procedures

The applicable requirement for maintenance and training is updated to the current Minor NSR boilerplate language as used in the 9/17/13 permit.

Condition IIIC1j: NSR permit invalidation

The provisions from the 2013 NSR permit related to NSR permit invalidation if construction is not completed in a timely manner are included in the draft T5 permit.

Monitoring for BLR05: No changes beyond those discussed in the "General" section above.

Recordkeeping for BLR05:

Condition IIIC3a(1):

Consistent with the current Minor NSR boilerplate language used in the 2013 NSR permit, the calculation method for demonstrating compliance with 12-month rolling total fuel usages is included in the draft T5 permit.

Condition IIIC3a(2):

For the reasons described in the condition IIIC1d discussion above, the former MSW recordkeeping requirement is not included in the draft T5 permit.

Condition IIIC3a(3):

The package sent to OMB by EPA described in the discussion of condition IIIC1c above, is a proposal to make a formal Non-Waste Determination in accordance with 40CFR241.4 for PRR. Until the outcome of the proposed rule change is finalized, the NSR permit is crafted so that Greif may make a self-assessment under 40CFR241.3 as to whether PRR meets that rule's legitimacy criteria as a non-waste. Per 40CFR60.2175(v)<sup>4</sup> any unit that combusts NHSM that has been determined not to be a solid waste must keep records of the appropriate criteria needed to make that determination. This recordkeeping requirement is included in the draft T5 permit.

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4 From NSPS CCCC (CISWI)

Conditions IIIC3a(5) and (6):

Recordkeeping requirements for the results of performance evaluations and opacity records from the 2013 NSR permit are all included in the draft T5 permit.

Condition IIIC3a(7):

Recordkeeping requirements for the NSPS Db fuel analysis records from the 2013 NSR permit are all included in the draft T5 permit. One of these records is a certification that only "...natural gas, wood, and/or other fuels that are known to contain *insignificant amounts of sulfur* are combusted..." in BLR05. From 40CFR60.42b(k)(2) *insignificant amounts of sulfur* is taken to mean fuels with a potential SO<sub>2</sub> emission rate of 0.32 lb/MMBtu or less. The potential to emit limits for wood and other fuels at Greif are based on 0.025 lb/MMBtu.

Testing for BLR05:

Conditions IIIC4a and b:

Before the current project, boiler BLR05 was subject to NSPS Db and the applicable requirements were incorporated by reference into the initial (1998) permit for the unit. The current project on boiler BLR05 fits the definition of an NSPS modification<sup>5</sup> and so is subject to review of the revised applicable requirements in NSPS Db as proposed 2/28/05. Boiler BLR05 as modified is subject to the PM and opacity standards in 40CFR60.43b and therefore must conduct initial performance tests using listed procedures and methods. The NSPS Db tests include initial PM performance test (Condition IIIC4a) and the visible emission evaluations (Condition IIIC4b). However, since the NSPS Db required COM has completed its initial performance evaluation and yearly system audits are already required by previous permit approvals, no additional performance evaluations of the COM are required by the 2013 NSR permit or this draft T5 permit.

Condition IIIC4c:

Condition 14 in the 2013 NSR permit allowing the option to use the COM in lieu of Method 9 to satisfy the initial visible emission performance evaluation is added to the draft T5 permit..

Condition IIIC4d:

The requirement to construct the BLR05 stack so that emission testing may be performed is updated to the language used in Condition 17 in the 2013 NSR permit.

Reporting for BLR05:

Condition IIIC5b:

The provisions from the 2013 NSR permit related to notifications of modification and testing activity milestones are included in the draft T5 permit.

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<sup>5</sup> E.g., this modification to BLR05 will commence after the proposal date of the revised Db standards (i.e., 2/28/05) and will increase the emission rate to the atmosphere pollutants to which a standard applies. The standards addressed by the 2005 revision are SO<sub>2</sub> and PM.

### **Streamlined Requirements**

No changes beyond those discussed in the "General" section above.

### **GENERAL CONDITIONS**

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

#### **Comments on General Conditions**

##### **XII.B. Permit Expiration** (No changes due to the current significant modification.)

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.2-604 and §10.1-1185 of the *Code of Virginia*, and the "Department of Environmental Quality Agency Policy Statement No. 2-09".

##### **XII.F. Failure/Malfunction Reporting** (No changes due to the current significant modification.)

Section 9 VAC 5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four daytime business hours of discovery of the malfunction.

##### **XII.U Malfunction as an Affirmative Defense** (No changes due to the current significant modification.)

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition XII.U and General Condition XII.F. For further explanation see the comments on general condition XII.F.

##### **XII.Y. Asbestos Requirements** (No changes due to the current significant modification.)

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

### **STATE ONLY APPLICABLE REQUIREMENTS**

None (No changes due to the current significant modification.)

### **FUTURE APPLICABLE REQUIREMENTS**

The permit contains general references to the Boiler MACT applicable requirements and applicable compliance date. This is considered appropriate due to the numerous challenges to



the rule and EPA's current reconsideration notice indicating many topics will be considered. Additionally this rule is a future applicable requirement (current compliance date is 1/31/2016).

**INAPPLICABLE REQUIREMENTS**

None identified. (No changes due to the current significant modification.)

**COMPLIANCE PLAN**

None (No changes due to the current significant modification.)

**INSIGNIFICANT EMISSION UNITS** (No changes due to the current significant modification.)

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110. Insignificant emission units are included in Section IX of the T5 permit

**CONFIDENTIAL INFORMATION** (No changes due to the current significant modification.)

No confidential information request has been made. All portions of the Title V permit and application are available for public review.

**PUBLIC PARTICIPATION**

The draft/proposed permit was placed on public notice in the (Lynchburg) News and Advance from 10/17/13 to 11/18/13. This draft permit was concurrently reviewed as a proposed permit by the EPA with an end of review date of 12/2/13. No comments were received.